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# BARLEY CULTURE IN CANADA

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DOMINION OF CANADA  
DEPARTMENT OF AGRICULTURE  
PAMPHLET No. 99—NEW SERIES

Printed by authority of the Hon. W. R. Motherwell, Minister of Agriculture,  
Ottawa, 1928

## BARLEY CULTURE IN CANADA

Barley ranks high in production among the cereal grains grown in Canada as a whole. In the three prairie provinces (Manitoba, Saskatchewan and Alberta) which constitute the greatest grain producing section of the Dominion, 78 per cent of the barley crop of Canada is produced. In the Province of Manitoba, barley now actually eclipses spring wheat in total production. Table I gives the production over a period of years.

TABLE 1—TOTAL YIELDS OF BARLEY BY PROVINCES IN CANADA FOR THE YEARS 1913, 1918, 1923 AND 1927<sup>1</sup>

—	1913	1918	1923	1927
	bush.	bush.	bush.	bush.
Ontario.....	14,589,000	24,247,700	13,523,000	17,238,000
Manitoba.....	14,305,000	27,963,400	25,726,000	36,717,000
Saskatchewan.....	10,421,000	11,888,000	19,278,200	27,129,000
Alberta.....	6,334,000	7,756,000	14,774,000	12,000,000
Other Provinces.....	2,670,000	5,432,140	3,696,600	3,854,000
Total for Canada.....	48,319,000	77,287,240	76,997,800	96,938,000

<sup>1</sup>Monthly Bulletin of Agricultural Statistics, published by the Dominion Bureau of Statistics, Ottawa, Canada.

### INCREASE OF BARLEY PRODUCTION IN CANADA

In 1924 Canada became the fifth largest producer of barley in the world, which position she still holds. For the five-year period of 1909-13, Canada ranked thirteenth. It will therefore be seen that Canada as a barley producing country is making rapid strides.

In yield per acre, Canada stands sixth among the leading barley producing countries of the world, with an average yield of 27.0 bushels per acre for the three-year period 1924-26. England and Wales stand second with a yield of 36.1 bushels per acre.

TABLE 2—PRODUCTION OF BARLEY IN THE LEADING COUNTRIES OF THE WORLD\*

Countries	Average 1909-13	1924	1925	1926	1927	Average yields per acre 1924-26
	1,000 bush.	1,000 bush.	1,000 bush.	1,000 bush.	1,000 bush.	bush.
European Russia.....	381,235	147,582	239,036	230,504	265,577	14.0
United States.....	184,812	181,575	213,863	188,340	25.2	
India.....	145,496	137,060	123,387	120,587	18.5	
Germany.....	133,787	110,226	119,373	113,102	125,708	31.8
Canada.....	45,275	88,807	112,668	99,684	98,242	27.0
Spain.....	74,689	83,700	98,925	96,284	89,485	21.1
Japan.....	95,784	75,024	91,468	88,075	71,555	34.6
Poland.....	69,055	55,488	77,036	71,401	74,871	22.4
Czechoslovakia.....	71,108	44,583	57,206	52,500	55,020	30.0
France.....	52,826	48,051	47,159	45,855	55,570	27.0
England and Wales.....	50,658	46,572	47,133	42,761	40,241	36.1
Roumania.....	61,677	30,759	46,817	77,391	57,411	12.7
Morocco.....	38,000	53,278	48,227	23,391	36,744	12.9
Denmark.....	26,860	34,219	36,574	33,415	35,825	46.2
Asiatic Russia.....	36,795	27,196	30,756	29,659	.....	13.3
Chosen.....	32,243	37,074	40,363	38,307	34,898	17.9
Algeria.....	45,974	18,941	35,840	23,000	39,500	7.7
Hungary.....	32,369	14,712	25,430	25,509	23,319	21.3
Argentina.....	4,395	6,974	17,054	18,572	16,994	15.4

\*Figures from "Yearbook of Agriculture, 1927" of the United States Department of Agriculture.

## PRINCIPAL BARLEY VARIETIES GROWN IN CANADA

Taking Canada as a whole the six-rowed varieties of barley occupy much the larger place at present, and of these, certain strains of the Manchuria type, notably O.A.C. 21, are the most popular.

O.A.C. 21. This is a selection made by the Ontario Agricultural College, Guelph, Ontario, from a Russian variety known as Mandscheuri. The variety is characterized by a blue aleurone layer.

For malting purposes this variety is regarded by the malting companies of Canada as eminently satisfactory. In fact this is the variety which is receiving the greatest encouragement throughout the Dominion at the present time. It can be grown successfully over a wider range of soil and climatic conditions throughout Canada than can the two-rowed sorts, and also produces a more satisfactory malt as a rule.

TREBI. Within the past two or three years another six-rowed variety called Trebi has come to occupy a prominent place in Western Canada, especially in Manitoba and across the southern parts of Saskatchewan and Alberta, by reason of its high yielding ability. This variety resembles quite closely the Coast and Bay Brewing varieties, which latter have been, not only the most important types grown in the western part of the United States for many years, but have been in high favour by many European brewers.

The grain of Trebi is relatively large and coarse and like O.A.C. 21 has a blue aleurone layer. Malting tests have not yet been sufficiently extensive to indicate conclusively how this variety may be regarded by the brewer. At the time of going to press, a consignment of Alberta-grown Trebi is being tested by Hugh Baird & Sons of Glasgow, who may be able to have their report ready for perusal by those visiting the present Brewers' exhibition.\*

HANNCHEN. In certain parts of Saskatchewan, notably in the northern parts, a two-rowed variety called Hannchen, has become quite popular. This variety originated at the Plant Breeding Station at Svalöf, Sweden.

In Scandinavia this variety ranks quite high among the brewers, but in Canada its brewing qualities have not yet been adequately investigated.

THORPE. In those districts where the barley crop is liable to lodge badly, the strong strawed, two-rowed varieties of the "Thorpe" type are becoming quite popular. Of these, Canadian Thorpe and Duckbill Ottawa 57 are generally preferred at present. These types produce a fine, large and attractive kernel and under suitable conditions may prove highly desirable for malting.

CHARLOTTETOWN 80. In the Maritime Provinces (New Brunswick, Nova Scotia, and Prince Edward Island) a two-rowed variety of the Chevalier type known as Charlottetown 80 holds first place and is quite generally, although not extensively grown. This variety originated as a selection from Old Island Two-Rowed made by the Dominion Experimental Farm, Charlottetown, Prince Edward Island, Canada. The original variety undoubtedly was brought from England.

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\* Visitors at the Brewers' Exhibition who are interested in the results of this test, should enquire for same from the man in charge of the Canadian exhibit. Others who happen to read this pamphlet at a later date, may obtain the above information from the Cereal Division, Experimental Farm, Ottawa, Canada.

## CLIMATE OF CANADA AND GREAT BRITAIN\*

Since climatic conditions play an important part in determining the quality of barley for malting purposes, a comparison of the hours of sunshine, the precipitation and the temperatures between two points in Canada and one in England is submitted in the following graphs.

In Canada, it will be seen that April gives a temperature that is very similar to the temperature of England in March. April is Canada's seeding month, whereas March is England's. From this time on Canada has higher monthly temperatures, more rainfall and considerably more sunshine, all of which are beneficial to the barley crop. This abundance of sunshine and warm temperature all help to hasten the maturity of the crop, with the result that by the end of August when the days are getting cooler with less sunshine, practically all the barley crop of Canada is harvested. Western Canada, where most of the barley in Canada is grown, has a low monthly rainfall at this time as a rule, thus assuring comparatively good harvesting conditions.

## BARLEY INVESTIGATIONS UNDER WAY IN CANADA

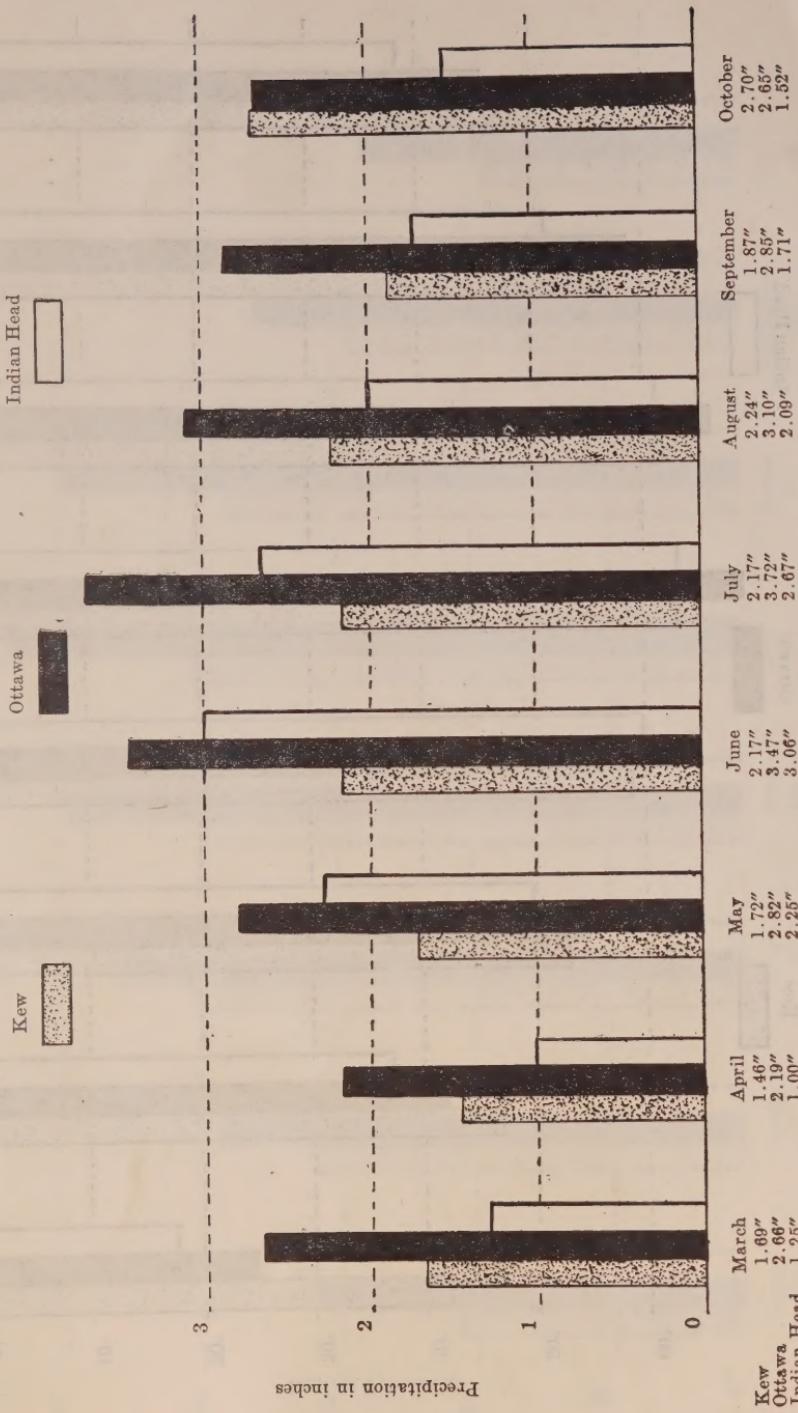
In view of the steady increase in the area devoted to barley growing in Canada, and to the development of the malting industry throughout the Dominion, more and more attention is coming to be devoted to those factors which go to determine the value of barley for malting purposes.

Such considerations as the geographical range of certain varieties or types from a malting standpoint are receiving special consideration, while the Plant Breeder is active in endeavouring to develop superior malting types for different regions or zones.

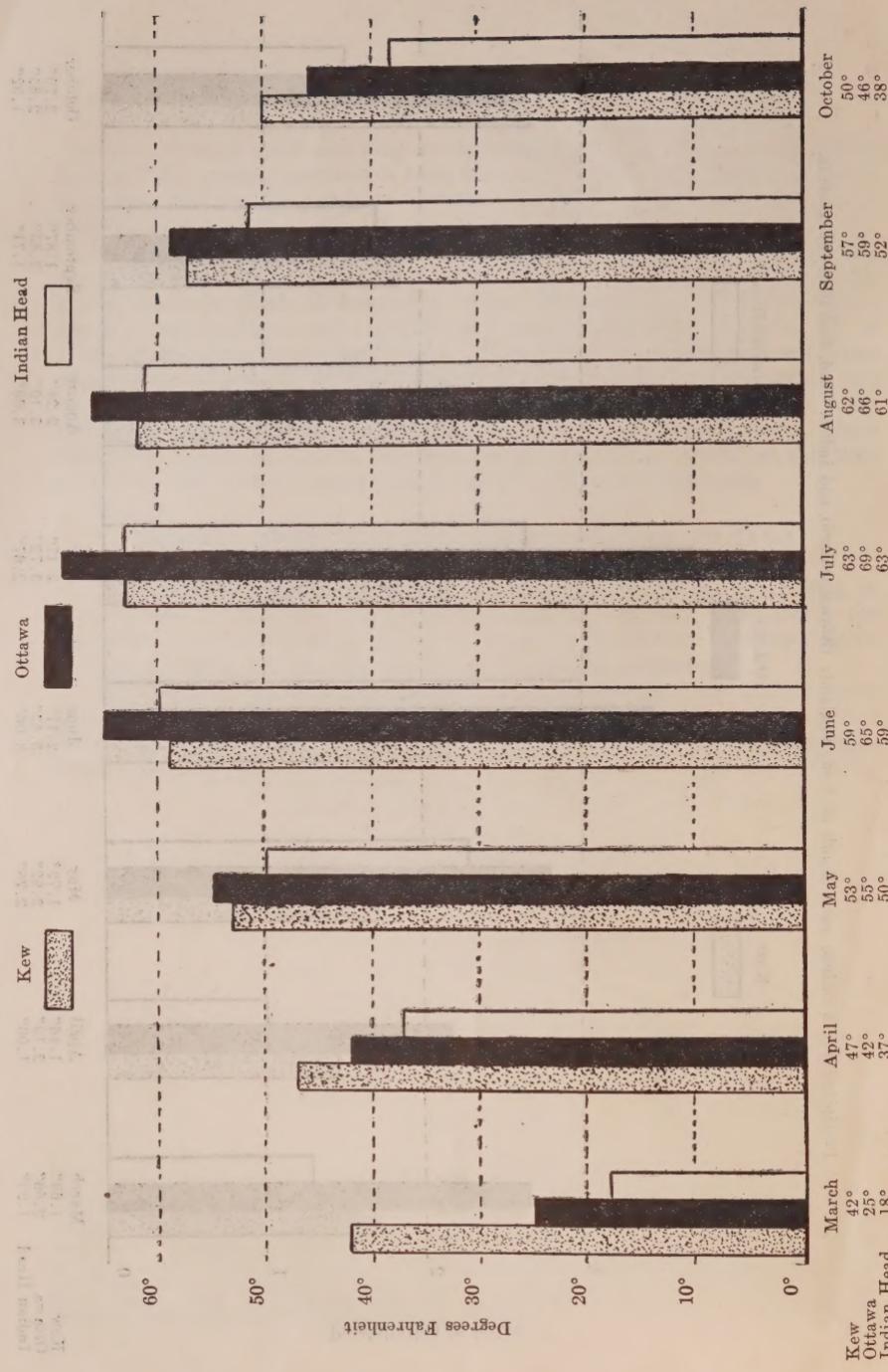
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\* Statistics from which the graphs have been compiled are to be found, for Kew in "The Weather Calendar for Agricultural, Brewing and Allied Industries," compiled by A. F. Mackiehnie. Published by Hugh Baird and Sons Ltd., Glasgow. For Ottawa in the Reports of the Dominion Field Husbandman of the Experimental Farms Branch, Ottawa, Canada. For Indian Head, Saskatchewan, in the Report of the Superintendent of the Experimental Farm, Indian Head, Saskatchewan, for 1927. The Canadian Reports are published by the Dominion Department of Agriculture, Ottawa, Canada.

Precipitation (in inches) each Month at Kew, England; Ottawa, Ontario, and Indian Head, Saskatchewan, Canada.



Mean Daily Temperatures each Month at Kew, England; Ottawa, Ontario, and Indian Head, Saskatchewan, Canada.



Hours of Sunshine per Month at Kew, England; Ottawa, Ontario, and Indian Head, Saskatchewan, Canada.

Indian Head

Ottawa

Kew

Hours of sunshine per month

200  
150  
100  
50  
0

March April May June July August September October

Kew 105 157 201 197 201 187 145 92  
Ottawa 160 195 228 249 269 248 179 137  
Indian Head 135 176 212 230 273 167 127

